Abstract of the Disclosure

A separator finger apparatus and method for insertion of a separation finger into and removal from a stream of web product. The unique motion provided by the elements making up the separation finger apparatus permits the separation finger to be mounted close to folding rolls (from which the web product issues) with reduced separation finger-to-folding roll interference. Specifically, the separation finger is manipulated to rotate and translate simultaneously as it is inserted into or removed from the stream of web product. The elements creating the separation finger motion are preferably a pivot arm mounted for rotation about a first axis and a translation member mounted for rotation about a second axis. The pivot arm is preferably rotatably coupled to the separation finger at a third axis. The separation finger is preferably coupled to the translation member for translational or sliding motion therealong. With these connections, a rotational movement of either the pivot arm or the translation member about their respective first and second axes causes the simultaneous rotation of the translation member (and attached separation finger) and orbiting of the separation finger about the first axis. This motion creates an arcuately-shaped path for the separation finger, which thus translates and rotates into the stream of web product with less folding roll interference than a circular path would produce and with gentler motion to the web product than a purely linear translation would produce. The invention permits longer web separation fingers to be used, which in turn requires fewer separation fingers.